I 49.89: 87-474/MAP E14

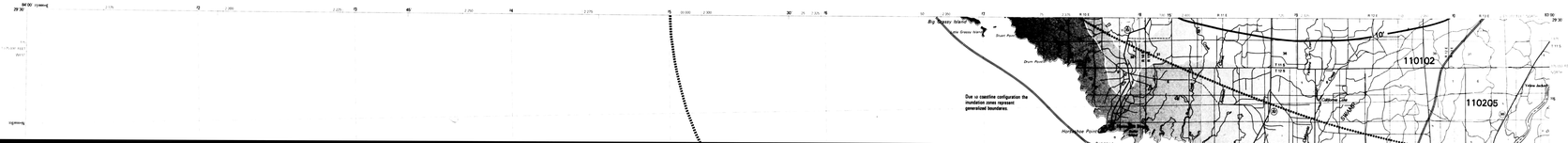
MAP E14

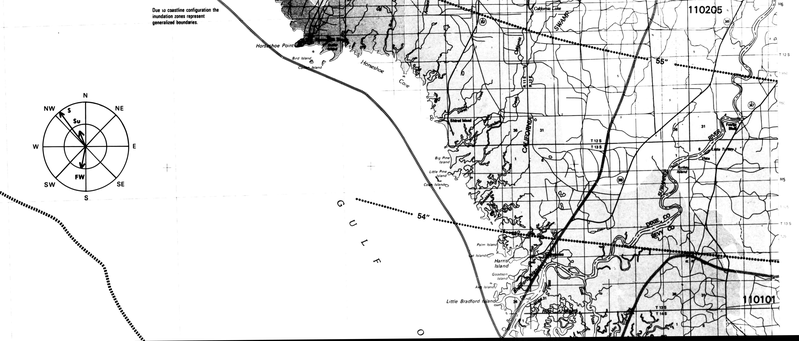
Cedar Keys

FLORIDA ECOLOGICAL ATLAS

HYDROLOGY AND CLIMATOLOGY

AMS 85-0011
FWS/OBS-82/47.1





ORIGINAL

Scale 1:100 000

TOPICAL MAPS IN THIS ATLAS:
A. BIOLOGICAL RESOURCES
B. SOCIOECONOMIC FEATURES
C. SOILS AND LANDFORMS
D. OIL, GAS AND MINERALS
E. HYDROLOGY AND CLIMATOLOGY

1984

Produced by U.S. Fish and Wildlife Service and Minerals Management Service

Projection and 10,000 meter grid, zone 17: Universal Transverse Mercator
20,000-foot grid ticks based on Florida coordinate system, west zone

100

1 800

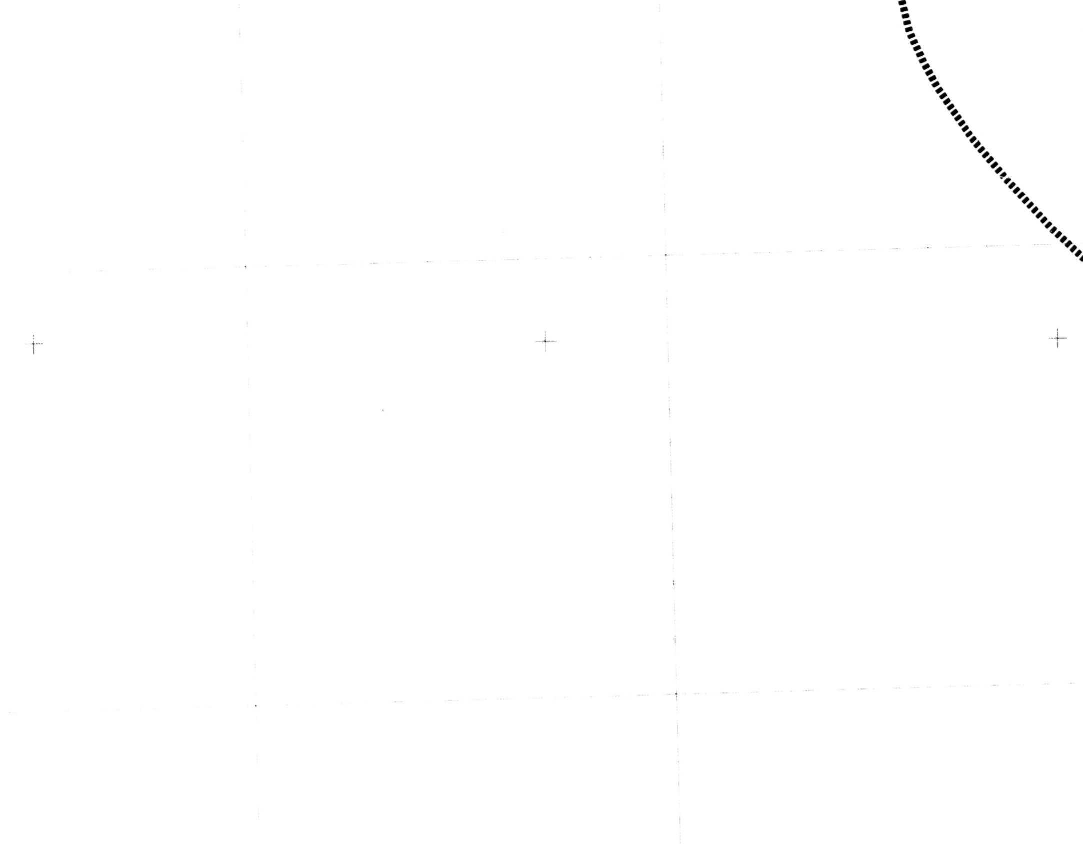
324

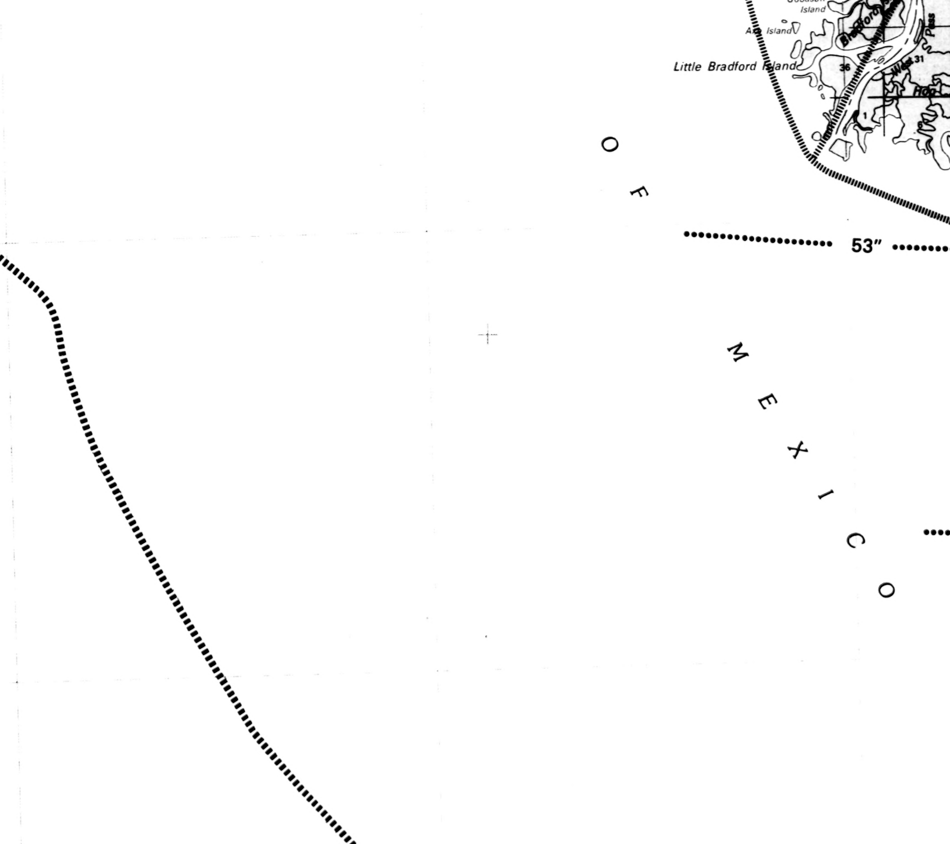
15'

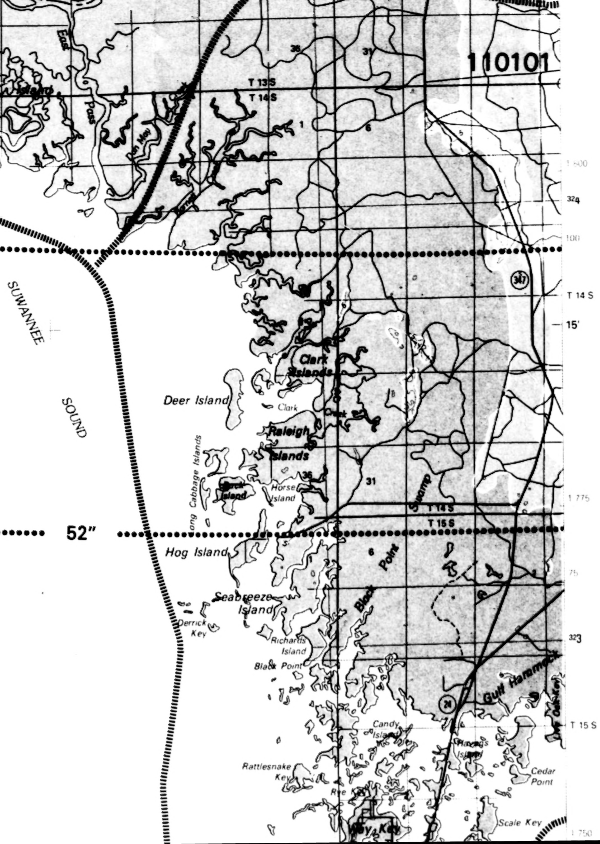
75

1 775

323




Island
Axe Island
Little Bradford Island
Bradford
Pass
36
West
31
Hop
1
O F
53″
M E X I C O


110101
T 13 S
T 14 S
East Pass
Island
SUWANNEE SOUND
36
31
1
6
1 600
324
100
347
T 14 S
15′
Clark Islands
Deer Island
Clark
Creek
Raleigh Islands
Long Cabbage Islands
Black Island
Horse Island
36
31
Swamp
T 14 S
T 15 S
1 775
52″
Hog Island
6
Black Point
75
Seabreeze Island
Derrick Key
Richards Island
Black Point
323
24
Gulf Hammock
Candy Island
T 15 S
Rattlesnake Key
Rye Key
Cedar Point
Scale Key
1 750

Produced by U.S. Fish and Wildlife Service and Minerals Management Service

Projection and 10,000 meter grid, zone 17: Universal Transverse Mercator
25,000-foot grid ticks based on Florida coordinate system, west zone

Overlay material compiled in 1983 from latest available data obtained from Federal, State and Local government agencies and other sources.

—50′— POTENTIOMETRIC CONTOURS OF THE FLORIDAN AQUIFER

The map represents dry season water levels present in tightly cased wells penetrating the Floridan Aquifer during May of 1980. The contour interval is 5 and 10 feet. Contour lines have been generalized to allow for non-simultaneous water level measurement and variable well depth.
Groundwater flow is down-gradient from potentiometric highs and perpendicular to potentiometric contour lines.
(Measured in feet above mean sea level)

••••52″•••• MEAN ANNUAL ISOHYETAL (RAINFALL) CONTOURS

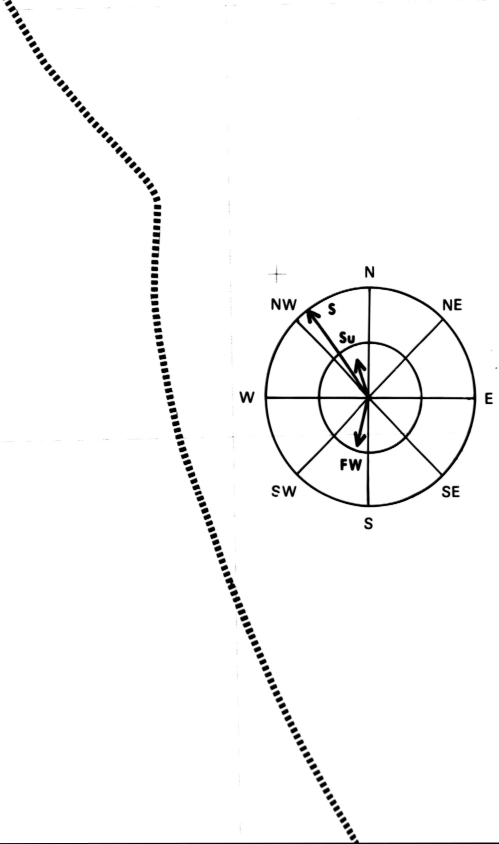
(1951-1980 National Weather Service Normal Base Period)
The contour interval is 1.0″ (refer to narrative for monthly isohyetal maps and for trend evaluation).

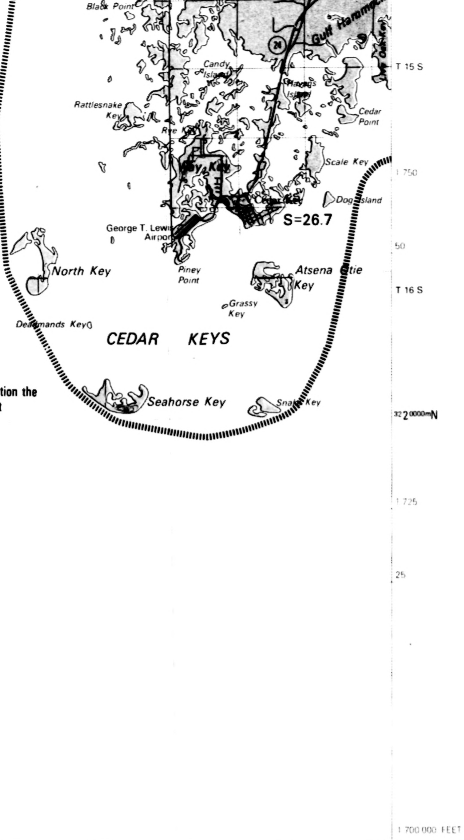
6 NATIONAL WEATHER SERVICE 30-YEAR CLIMATOLOGICAL STATION

(Number in the box on map refers to station name in supplemental legend'

WIND ROSE STATION

³²3
50
1 750
³²2
25 000 FEET
NORTH
1 725

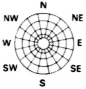

N
NE
E
SE
S
SW
W
NW
S
Su
FW


Black Point
Gulf Hammock
24
Candy Island
Havens Island
Rattlesnake Key
Rye Key
Way Key
Cedar Point
Scale Key
Cedar Key
Dog Island
S=26.7
George T. Lewis Airport
North Key
Piney Point
Atsena Otie Key
Grassy Key
Deadmans Key
CEDAR KEYS
Seahorse Key
Snake Key
T 15 S
1 750
50
T 16 S
32 20000mN
1 725
25
1 700 000 FEET

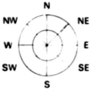
Due to coastline configuration the inundation zones represent generalized boundaries.

(1951-1980 National Weather Service Normal Base Period)
The contour interval is 1.0" (refer to narrative for monthly isohyetal maps and for trend evaluation).

6 **NATIONAL WEATHER SERVICE 30-YEAR CLIMATOLOGICAL STATION**
(Number in the box on map refers to station name in supplemental legend'


N
NE
E
SE
S
SW
W
NW

WIND ROSE STATION
Concentric circles represent 5% frequency interval. The average wind speed (mph) is listed in the outer quadrant of each vector direction (Wind rose data represents wind data that has been summarized by the National Climatic Center for Airports, Naval Air Stations and NWS Offices)


N
NE
E
SE
S
SW
W
NW

OFFSHORE SURFACE CURRENT ROSE
Resultant vectors for each season are shown. The magnitude of each vector is proportional to the velocity. (Concentric circles represent 3 centimeters/second currents)
Vectors defined by the New England Coastal Engineers Computer Model G.A.L.

S	Spring
Su	Summer
FW	Fall/Winter

HURRICANE INUNDATION ZONES
(Maximum areas subject to flooding by Storm Category, as defined by National Weather Service Computer Models)

▨	Category #1 Storm (74-95 mph winds; probability of occurence 1:20 years)
▨	Category #2 Storm (96-110 mph winds; probability of occurence 1:27 years)
□	Category #3 Storm (111-130 mph winds; probability of occurence 1:83 years)
□	Category #4 Storm (131-155 mph winds; probability of occurence no historical record)
□	Category #5 Storm (> 155 mph winds; probability of occurence no historical record)

(Hurricane inundation zones on this map represent generalized areas of maximum areal storm surge flooding by storm category. The scale and detail of this map are meant for planning purposes only. This map is unsuitable for determining the vulnerability of individual buildings to storm surge)

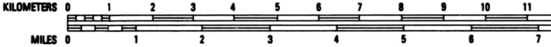
29°00′
84°00′ 21 2 175 000 FEET NORTH

THE FLORIDA ECOLOGICAL ATLAS WAS PRODUCED BY THE U.S. FISH AND
SERVICE, DIVISION OF BIOLOGICAL SERVICES, NATIONAL COASTAL ECOSYS
TEAM (FWS/OBS - 82/47) AND THE MINERALS MANAGEMENT SERVICE FO
PLANNERS, DECISION MAKERS, AND THE GENERAL PUBLIC, TO DETERMINE
EVALUATE CHANGE AND TO RESOLVE CONFLICTS AMONG LAND USES, FIS
WILDLIFE REQUIREMENTS, AND THE MAINTENANCE OF ECOLOGICAL DIVER
THE STUDY AREA INCLUDES THE COASTAL COUNTIES: ESCAMBIA, SANTA
OKALOOSA, WALTON, WASHINGTON, BAY, CALHOUN, GULF, FRANKLIN, WA
JEFFERSON, TAYLOR, DIXIE, LEVY, CITRUS AND HERNANDO, AND EXTENDS
OFFSHORE APPROXIMATELY 10 MILES. THERE IS NO ATTEMPT, IN THE DES
OR PRODUCTS OF THIS STUDY, TO DEFINE THE LIMITS OF PROPRIETARY
JURISDICTION OF ANY FEDERAL, STATE, OR LOCAL GOVERNMENT TO ESTA
THE GEOGRAPHICAL SCOPE OF THE REGULATORY PROGRAMS OF GOVERN
AGENCIES.

THIS MAP HAS BEEN COMPILED FROM A VARIETY OF SOURCE MATERIALS
INCLUDING MAPS, AERIAL PHOTOS, AND REPORTS. SINCE MANY SOURCES
CONTAINED GENERALIZED LOCATIONS OF RESOURCES AND OTHER MAPPE
FEATURES, THE USER SHOULD NOT RELY ON THESE MAPS FOR PRECISE
MEASUREMENTS OF DISTANCES OR AREAS.

MICROCOPY RESOLUTION TEST CHART
NBS - 1010a
ANSI and ISO TEST CHART No. 2
1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5

2 200 2 225 23 45′ 2 250 24


KILOMETERS 0 1 2 3 4 5 6 7 8 9 10 11
MILES 0 1 2 3 4 5 6 7

WILDLIFE
STEMS
R COASTAL
AND
H AND
SITY.
ROSA,
AKULLA,

IGN

BLISH
MENT

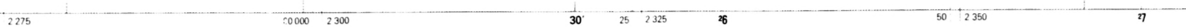
D

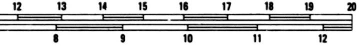
PRIMARY SOURCES OF MAPPED INFORMATION:

HYDROLOGY: Potentiometric Surface of the Floridan Aquifer, Northwest Florida Water Management District, Tallahassee, Florida, 1980.
Potentiometric Surface of the Floridan Aquifer, Suwanee River Water Management District, Live Oak, Florida, 1980.
Potentiometric Surface of the Floridan Aquifer, Southwest Florida Water Management District, Brooksville, Florida, 1981.
Sea, Lake, and Overland Surges from Hurricanes (SLOSH) Model, National Oceanic and Atmospheric Administration, Silver Spring, Maryland, 1981.
Water Resources Data for Florida, U.S. Geological Survey, Tallahassee, Florida, 1979, 1980.
Water Quality Inventory for the State of Florida, Dept. of Environmental Regulation, Tallahassee, Florida, 1982.
Current Atlas of the West Florida Shelf, New England Coastal Engineers, Bangor, Maine. 1982.

CLIMATOLOGY: National Climatic Center, Asheville, North Carolina. 1981.

FOR COMPLETE REFERENCES SEE MAP NARRATIVE


2 275
50 000
2 300
30′
25
2 325
26
50
2 350
27


12
13
14
15
16
17
18
19
20
8
9
10
11
12

SCALE 1:100 000

1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND

CONTOUR INTERVAL 5 METERS

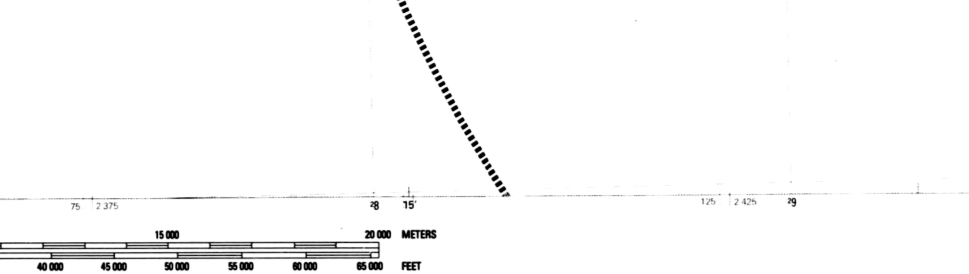
0
1000
5000
10 000
0
5000
10 000
15 000
20 000
25 000
30 000
35 000

CLIMATOLOGICAL STATION NAMES

1. Pensacola FAA Airport
2. Milton Experimental Station
3. Crestview FAA Airport
4. De Funiak Springs
5. Niceville
6. Chipley 3 E
7. Panama City NE
8. Blountstown
9. Apalachicola Airport
10. St. Marks 5 SSE
11. Monticello 3 W
12. Cross City 2 WNW
13. Inverness
14. Brooksville Chinsegut Hill

||||||||||||||||||||| **U.S. GEOLOGICAL SURVEY HYDROLOGIC UNIT BOUNDARIES (Cont'd)**

Coastal Area between Ochlockonee and Apalachicola Rivers (130013)
Ochlockonee River Basin (120003)
St. Marks and Wakulla Rivers and Coastal Area between Aucilla and Ochlockonee Rivers (120001)
Aucilla River Basin (110103)
Coastal Area between Suwannee and Aucilla Rivers (110102)
Suwannee River Basin below Withlacoochee River excluding Santa Fe River Basin (110205)
Waccasassa River and Coastal Area between Withlacoochee and Suwannee Rivers (110101)
Oklawaha River Basin (080102)
Withlacoochee River Basin (100208)
Coastal Area from Tampa Bay to Withlacoochee River (100207)


75
2 375
28
15′
125
2 425
29
15 000
20 000
METERS
40 000
45 000
50 000
55 000
60 000
65 000
FEET

▲ Q = ___ cfs
R = ___ in/yr

U.S. GEOLOGICAL SURVEY STREAM GAGING STATION

Mean Annual Discharge (cubic feet/second) = Q
Mean Annual Runoff (inches/year) = R

△ SC = ___ mmhos
Q = ___ cfs
R = ___ in/yr

U.S. GEOLOGICAL SURVEY STREAM GAGE AND SURFACE WATER QUALITY STATION

Mean Annual Surface Water Specific Conductivity (micromhos) = SC
Mean Annual Discharge (cubic feet/second) = Q
Mean Annual Runoff (inches/year) = R

△

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION FIXED SURFACE WATER STATION

(Insufficient period of record to establish a long term mean)

○ SC = ___ mmhos
Cl = ___ mg/l

U.S. GEOLOGICAL SURVEY GROUND WATER OBSERVATION AND WATER QUALITY WELL

Mean Annual Ground Water Specific Conductivity (micromhos) = SC
Dissolved Chloride (milligrams/liter) = Cl

S = ___ ppt

MEAN ANNUAL COASTAL SALINITY

(parts per thousand) = S

STUDY AREA BOUNDARY

▪▪▪▪▪▪▪▪▪▪ Offshore
— — — Inland (County)
—— - - —— Inland (State)

1 700 000 FEET
WEST
29°00′
150
2 450
300000mE
175 000 FEET WEST
2 475
83°00′

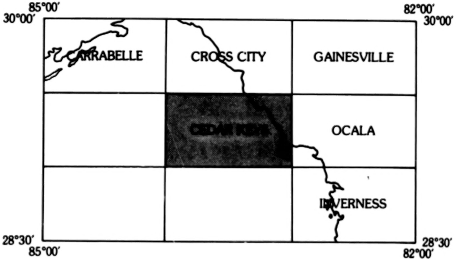
☐ probability of occurence no historical record)

☐ Category #5 Storm (> 155 mph winds; probability of occurence no historical record)

(Hurricane inundation zones on this map represent generalized areas of maximum areal storm surge flooding by storm category. The scale and detail of this map are meant for planning purposes only. This map is unsuitable for determining the vulnerability of individual buildings to storm surge)

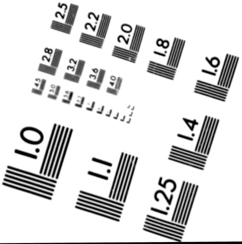
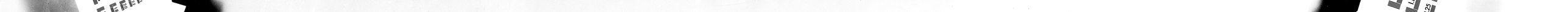
||||||||||||||| **U.S. GEOLOGICAL SURVEY HYDROLOGIC UNIT BOUNDARIES**

Perdido River Basin (14106)
Perdido Bay, Inflow and Coastal Area (140107)
Lower Conecuh River Basin (140304)
Escambia River Basin (140305)
Blackwater River Basin (140104)
Escambia Bay, Inflow and Coastal Area (140105)
Yellow River Basin (140103)
Choctawhatchee Bay, Inflow and Coastal Area (140102)
Pea River Basin (140202)
Choctawatchee River below Pea River (140203)
St. Andrews Bay, Inflow and Coastal Area (140101)
Chipola River Basin (130012)
Apalachicola River Basin (130011)
Apalachicola Bay Coastal Area and Offshore Islands (130014)


85°00′
30°00′
82°00′
30°00′
CARRABELLE
CROSS CITY
GAINESVILLE
CEDAR KEYS
OCALA
INVERNESS
28°30′
85°00′
28°30′
82°00′

OFILMED FROM
T AVAILABLE COPY

MICROCOPY RESOLUTION TEST CHART
NBS 1010a
(ANSI and ISO TEST CHART No. 2)


2.5
2.2
2.0
1.8
1.6
2.8
3.2
3.6
4.0
4.5
5.0
1.0
1.1
1.25
1.4